

**What is Claimed:**

1. A system for load balancing, based on class of service, for wireless communication networks having a plurality of cells, each cell adapted to serve a plurality of mobile subscriber stations, comprising:

means for determining when assignment of a mobile subscriber station to a cell results in a first criteria being exceeded;

means, responsive to said means for determining, for identifying at least one of a plurality of mobile subscriber stations served by said cell for reassignment to another cell based upon the class of service of said plurality of mobile subscriber stations.

2. The system for load balancing of claim 1 wherein said first criteria comprises traffic load, said means for determining comprises:

means for measuring a traffic load in said cell; and

means for comparing said measured traffic load to a predetermined traffic load threshold.

3. The system for load balancing of claim 1 wherein said means for identifying comprises:

means for determining a class of service for said plurality of mobile subscriber stations served by said cell;

means for selecting at least one mobile subscriber station having the lowest class of service of said plurality of mobile subscriber stations served by said cell;

means for identifying another cell capable of serving said selected at least one mobile subscriber station.

4. The system for load balancing of claim 3 wherein said means for selecting comprises:

means for arbitrating among ones of at least one mobile subscriber station

having the lowest class of service of said plurality of mobile subscriber stations served by said cell, using additional criteria selected from call management factors, such as: duration of call connection, location of mobile subscriber within the cell, proximity to an adjacent cell, signal strength in adjacent cells, and the like.

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5. The system for load balancing of claim 3 wherein said means for identifying further comprises:

means for effecting a handoff of a communication connection that serves said selected at least one mobile subscriber station from said cell to said another cell.

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6. The system for load balancing of claim 4 wherein said means for identifying further comprises:

means, responsive to said means for effecting, for reviewing the secondary criteria to determine whether additional handoffs of mobile subscriber stations to other cell sites is advisable.

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7. A method of load balancing, based on class of service, for wireless communication networks having a plurality of cells, each cell adapted to serve a plurality of mobile subscriber stations, comprising the steps of:

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determining when assignment of a mobile subscriber station to a cell results in a first criteria being exceeded;

identifying, in response to said step of determining, at least one of a plurality of mobile subscriber stations served by said cell for reassignment to another cell based upon the class of service of said plurality of mobile subscriber stations.

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8. The method of load balancing of claim 7 wherein said first criteria comprises traffic load, said step of determining comprises:

measuring a traffic load in said cell; and

comparing said measured traffic load to a predetermined traffic load threshold.

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9. The method of load balancing of claim 7 wherein said step of identifying comprises:

determining a class of service for said plurality of mobile subscriber stations served by said cell;

5 selecting at least one mobile subscriber station having the lowest class of service of said plurality of mobile subscriber stations served by said cell;

identifying another cell capable of serving said selected at least one mobile subscriber station.

10 10. The method of load balancing of claim 9 wherein said step of selecting comprises:

arbitrating among ones of at least one mobile subscriber station having the lowest class of service of said plurality of mobile subscriber stations served by said cell, using additional criteria selected from call management factors, such as: duration  
15 of call connection, location of mobile subscriber within the cell, proximity to an adjacent cell, signal strength in adjacent cells, and the like.

11. The method of load balancing of claim 9 wherein said step of identifying further comprises:

20 effecting a handoff of a communication connection that serves said selected at least one mobile subscriber station from said cell to said another cell.

12. The method of load balancing of claim 10 wherein said step of identifying further comprises:

25 reviewing, in response to said step of effecting, the secondary criteria to determine whether additional handoffs of mobile subscriber stations to other cell sites is advisable.

30 13. A system for load balancing, based on class of service, for wireless communication networks having a plurality of cells, each cell adapted to serve a

plurality of mobile subscriber stations, comprising:

traffic load determining means for determining when assignment of a mobile subscriber station to a cell results in a first criteria being exceeded;

subscriber class of service identification means, responsive to said traffic load determining means, for identifying at least one of a plurality of mobile subscriber stations served by said cell for reassignment to another cell based upon the class of service of said plurality of mobile subscriber stations.

14. The system for load balancing of claim 13 wherein said first criteria comprises traffic load, said traffic load determining means comprises:

traffic load measurement means for measuring a traffic load in said cell; and

traffic threshold means for comparing said measured traffic load to a predetermined traffic load threshold.

15. The system for load balancing of claim 13 wherein said subscriber class of service identification means comprises:

class of service means for determining a class of service for said plurality of mobile subscriber stations served by said cell;

mobile subscriber station selection means for selecting at least one mobile subscriber station having the lowest class of service of said plurality of mobile subscriber stations served by said cell;

candidate cell means for identifying another cell capable of serving said selected at least one mobile subscriber station.

16. The system for load balancing of claim 15 wherein said mobile subscriber station selection means comprises:

additional criteria determining means for arbitrating among ones of at least one mobile subscriber station having the lowest class of service of said plurality of mobile subscriber stations served by said cell, using additional criteria selected from call management factors, such as: duration of call connection, location of mobile

subscriber within the cell, proximity to an adjacent cell, signal strength in adjacent cells, and the like.

17. The system for load balancing of claim 15 wherein said subscriber class  
5 of service identification means further comprises:

handoff activation means for effecting a handoff of a communication connection that serves said selected at least one mobile subscriber station from said cell to said another cell.

18. The system for load balancing of claim 4 wherein said subscriber class  
10 of service identification means further comprises:

threshold review means, responsive to said handoff activation means, for reviewing the secondary criteria to determine whether additional handoffs of mobile subscriber stations to other cell sites is advisable.

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